

AVIATION

The Oldest American Aeronautical Magazine

SEPTEMBER 7, 1925

Issued Weekly

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Double parachute jump from a Martin Bomber of the U. S. Marine Corps

Official Photo, U. S. Navy

VOLUME
XIX

SPECIAL FEATURES

NUMBER
10

ITALIAN AIRSHIP N2

THE DH54 AIR LINER

CONTINENTAL AIR TRANSPORT

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Manufacturers

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Aircraft*

Seattle, Washington

When Writing to Advertisers, Please Mention AVIATION

SEPTEMBER 7, 1925

AVIATION

Published every Monday

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Wings	20 ft. 10 in.	Ground clearance	4 ft. 6 in.
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Angle of incidence	2° 15'	Length of rudder	1 ft. 2 in.
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Wright 200 H.P. Aircooled Engines OFFER THE FOLLOWING ADVANTAGES to Air Mail Bidders

Cut the first cost of planes

The first cost of mail planes including new Wright Whirlwind H 200HP engines is about half the present cost of planes required by the U.S. Dept. of Mail Planes with 100 HP. The new Wright 200 HP engines will reduce the cost of planes to the mail contractors quantified on mail and cut losses that now make the probable over-generators of mail. A 200 HP mail load would be equivalent to 140 HP. The mail contractor will save 40% on his mail load and 20% on his delivery charges. It also means less weight in the plane which should pay. If there are profits why not more for a longer plane to mail more?

Reduce quantity of planes and space enroute required

Speed planes and long distances are one of the best signs of air mail transportation. The new Wright engines, efficiencies and minor repairs are made on Whirlwind engines reduce the operating costs of flying. The new Wright 200 HP engines will reduce the cost of planes required to mail the same weight. Planes with Whirlwind engines are more profitable because they are ready to be at the Air Mail of the time.

Ensure regularity of service

The mail planes must be ready to leave on schedule stops. The way saved going in there, it takes only an hour to change a propeller and get a plane in the air again. The new Wright 200 HP engines are particularly fast. The overhead can be reduced very greatly compared between runs and the Whirlwind Flying Service.

Cost less to operate

The low cost of fuel and labor for nation-wide inspection and repairs, the overhead and fuel economy factors are less than 1/2 yet per hr., the small garages and maintenance of spare parts due to the wide distribution of stores all make the Whirlwind engines economical to operate.

DURABILITY

The new Wright engines fly over 100 hrs. at full throttle and full RPM without replacement or adjustment of a single part or part of over 100 hrs. That is the equivalent of 100 hrs. of normal plane flying time. Many of the 100 Whirlwind engines have been flying over 100 hrs. without engine failure. Here, the new Wright 200 HP mail engines show 600 hrs. of flight with each time the engine pushed to maximum power. The new Wright 200 HP engines will give greater range than the old ones and with better loads, longer runs, less field flights, greater carrying capacity and operating headroom at the controls. The new Wright 200 HP engines can only be beat into or made up to the new models by continually improving each part as we should to give trouble. This is a

fact of time. A well produced Whirlwind (like Livermore) won the Merrie Trophy at the Detroit Air Meet in 1922. Since then 4-type models have been made with hundreds of changes, none of them for durability.

Decrease liability of crashes

A corduroy of engine durability is safety. Dependability next to low rate is the most important characteristic of any transportation equipment. The present dependence of the mail on the P-200 is the best guarantee for safe flying. In this reason Hepburn measures out against 10 Whirlwind fleet over 1,200 hours with constant engine loading and short duration stoppage in the last rank line.

Give high performance

The moving air weight and resistance of the wire resistance system gives better performance, higher engine at MILEAGE DAY LOAD.

Winter and Summer Flying

The new Wright 200 HP engines are better for extreme weather flying. Maintenance time on winter were flying properly is less than 1/2 of the time required for the old ones. In winter driving reductions, heavier weight, better hangars and all obtained by the new ones.

WARRANTY GUARANTEE

A regular 90 day "no fault warranty" goes with each of the new Wright 200 HP engines. The warranty period is based on a responsible company for great measure of protection to commercial operators. This warranty is based and will be administered to give real protection.

Service to Customers

We serve our customers on arriving and learning about Whirlwind engines. We have been doing this since the first day of the engine. This helps the purchaser and helps us to continue the dependability development of those Whirlwind. We keep the new Wright 200 HP engines in the most interesting and interesting. Where ever we receive a call we will get them. Spare parts are readily obtainable.

With Whirlwind engines you problems are our problems. The Wright Co. can only grow in sales and service. We are the only company that can help the customer of your type as you will be, for dependability, economy and efficiency. The advantage of using new engines, made by a strong company, with a history of 10 years, and a record of 22 years' experience and which is working to make the Air Mail's National Standard will be appreciated by all Air Mail Bidders.



AIR MAIL BIDDERS—Write for Bulletin 8A which contains detailed specifications, lower costs and full data for these Whirlwind 200 HP engines. State the route for which you propose to bid, the probable number of planes you will use, etc.

WRIGHT AERONAUTICAL CORPORATION, PATERSON, N. J.

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No. 10

Single or Three Engines in Air Transport

THE very interesting debate appearing in another part of this issue relates to aerial transport programs on the European Continent under German supervision and management and utilizing German equipment, certain major features of strategic import when viewed in the current light. Whether or not Germany's object in developing commercial aviation to this extent is, or really, safety, is a question of secondary consideration at this moment, but, whether the resultant application may be, it remains that Germany has been prevented by the Versailles Treaty from developing along other lines and it cannot be denied that the German commercial industry has made a very good showing indeed regarding the opposition project. That Germany, despite her restrictions should be the first nation of those on air transport, to find its regular operation, a three-engined passenger or tour airplane flying, if reports are correct, with any engine cut out, is a very significant fact for the need of the development of such a design for transport work being long been recognized.

The new three-engined Juasen plane which has passenger accommodation for twelve and is fitted with three engines developing 200 horsepower each, or 600 horsepower in all, is, according to reports, now in regular operation over the already-established Elbe route from Hamburg to Dresden. The power available in this design is of the order of 30 horsepower per passenger with all engines at full throttle, a condition which in existing flight will not prevail. Assuming a cruising condition at three-quarters throttle, this figure becomes 18 horsepower per passenger.

Now, comparing these figures with those of an efficient single engined commercial airplane, it is possible to formulate some idea of the actual price to be paid for the safety and reliability features put on the three-engined design. The new De Havilland 54, fourteen passenger plane, shortly to be put in service by Imperial Airways, on the London-Tunis route, if in fact, this has not already been done, is fitted with an engine rated at 300 horsepower which at full throttle represents 90 horsepower per passenger, while assuming the maximum power will put this figure at 22 horsepower per passenger.

The single engined plane, if and he remembered, is liable to let its load of passengers down at any altitude either over the water or the land, and though it must, and frequently does when such an event happens, land with perfect safety.

On the other hand, we have the three engined plane capable of continuing flight with any one engine stopped, placing the probability of travel by air upon a sound basis. And it will be seen, that the price to be paid, though not by any means small, is certainly not over excessive. Taking the case of the Juasen type 22 and the DH54, it is not suggested that either of these designs represent necessarily the peak of perfection in respect of efficiency, it would seem

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that the price to be paid for the reliability gained at the use of three engines is of the order of 20 horsepower per passenger, or, in comparison with the single engined type, an increase of 60 per cent. This certainly seems very high, but, since this must be balanced the tremendous results to be expected from having able to advertise absolute immunity from all delays due to engine trouble. Furthermore, as already pointed out, the two engined types are purely disastrous and do not necessarily represent the best that can be done, but merely tend to show the cost of the possibilities which must sooner or later be faced.

Light Planes at Vauville

THE Vauville Light Aircraft meeting which was held during the earlier part of last month, though not productive of any very remarkable performances in the usual sense, nevertheless, is regarded as having brought out the most valuable and interesting performances that have been put up in the course of the development of low powered flying. As complete details of the various events come to hand, further of a more reliable nature than are apparent at the surfaces are to be found.

It is interesting that in the rules for the meetings no regulation directly affecting engine size is to be found but the detail is governed in a most subtle manner in the classification tables which necessitated the flying over a course of 50 kilometers after which a climb to 2000 meters was to be safely run. The greatest consumption during the carrying out of this trial being limited to 1 kilogram for a single seat and 12 for a two seater, the limit for the entire load, not to exceed two hours. Here, therefore, economy rather than direct engine size was the governing factor and this surely must be regarded as a most advantageous method of securing efficiency in the design of the existing planes. For it is not cost of operation rather than rated power which has brought about the desire to develop the light plane.

And in spite of the stringent rules, it must be remarked how very good were the performances set up during the meet. The Demag-Poerstel light plane must be regarded as perhaps one of the most interesting examples of what can be done on small power that has as far been produced. This is still the result in a two-seater fuselage type, the pilot and passenger being accommodated in an entirely enclosed cabin of racing proportions and shielded from the cold air when in flight. Yet in spite of these features this plane, fitted with an engine developing but 45 horsepower, set up a top speed of no less than 75 miles per hour. Nothing is spared in this design for the comfort in flying and the plane would be fully fitted for the private tourist or the commercial tourist. Fitted with room for baggage and space for tools and other necessities the design comes admirably fitted for general private use.

Close View of Continental Air Development

How European Airlines Appear to an Informed American Visitor

The following letter has been received by *Airline* from a friend who is in Europe studying air transport. It probably will bring the reader closer to the actual conditions because it is written in first person—Editor.

The following are some comments native to aviation and airline here as I approach a continental status. I believe traffic and routes are of course distorted for the most part, but some real facts are apparent. For instance, I could not get a return flight from Koenigsberg to Berlin last week because both the Berlin Line and Aero-Lloyd were booked for those days in advance. I flew out there, a 600 km. stretch, in the early morning, and had to wait until 10:30 a.m. for my return flight. At the end of the day, I was told that the Berlin Line had about three more bookings at Koenigsberg about 8:30 a.m., which was ahead of time. Schedules are maintained with remarkable regularity, for two reasons, chiefly for publicity sake, trying to impress the public with the fact that airplanes can haul safe and certain, and then enough money is given the pilots so that the planes can always make schedule time, regardless of weather. The Berlin Line had a return flight three years ago, and remember reading out of the return flight because I came across some air marine lists an imprint over it. I made several flights over southern routes, and always found passengers, sometimes only one, but schedules always maintained with great promptness, and everybody got his schedule. For instance, 200 km. is a good air route between Berlin and Hamburg, and all flights are on time. But in Berlin, you cannot easily get a seat. The Berlin Line simply sent the planes up to Sweden, underpaid, as per Allied regulations, had the planes transferred to Swedish registry, and then sent them back to operate in Germany under Swedish registration, with three full powered engines. The plane is an ideal traveling vehicle, with sufficient power and an easy-to-handle six-cylinder four passenger plane, the exact

for the most part is about one-third the weight of the Blisshorn and a dozen times as winging. The pilot or captain gets off fairly large portions of his salary, usually give 50%, and the rest goes to the chief and foreman. The chief and the three ground crew each get 10% of the gross amount of the three planes, plus extra compensation for leading. By the way, large crowds now go off at the start, including photographers, newspapermen and officials. State police take charge of the landing places and keep the crowds away. Paid by the city, 100% of the cost of the landing place is paid by the state, and the state also has to pay the landing place. The reason, by the way, that the Blisshorn has no air lines is largely because the French won't permit it; the territory still being occupied territory. Others who had Junkers and Aero-Lloyd would long ago have been operating along the Rhine.

Avoiding the Allied Restrictions

I flew to Koenigsberg a few days ago on the new large-sized Junkers. It carries twelve passengers, and has three engines. Due to Allied control of airplane power in Germany there was at first some difficulty. The plane is built for three 280 hp. engines, but the Allied Control permitted only one 380 hp. engine. So the fuselage, and nearly 100 hp. were cut out of the plane. But in Germany, you cannot be forced to do this. They simply sent the planes up to Sweden, underpaid, as per Allied regulations, had the planes transferred to Swedish registry, and then sent them back to operate in Germany under Swedish registration, with three full powered engines. The plane is an ideal traveling vehicle, with sufficient power and an easy-to-handle six-cylinder four passenger plane, the exact

and the difference in time is 4 hr. 45 min. by plane and 12 hr. by train. We use the Elbe River line just under half distance from here, and travel seven out 200 per cent. The dynamics of the various companies, in answer to my questions, say that rates are extremely sharp and of course not paying, but state help balances the budget, and every director says that low rates are quite as essential as safety, and regularly after German lines have accepted the new rates, the allied states, should the Germans have imposed the new rates, would have complete freedom. There is no danger of

invasion in Russia. It is futile as the part of France to try to impede aircraft progress in Germany, as the Germans operate their roads without Allied supervision. Had the Allies insight, they would associate aircraft manufacturing within Germany and have it under their supervision and control. But the Allies have imposed their arbitrary legislation, should the Germans have imposed the new rates, the allied states where they have complete freedom. There is no danger of



The Duxon Kestrel. This aircraft is at all metal construction.

independence, as they are sure to do; then rates will have to come up a lot, but for the present rates everywhere are to be kept. So the result may well be that the Germans will not buy and not stand around. As a result of all this, Germans are occupying the air field. The lines are filled on the main routes, and Germans everywhere are conscious that there is no traffic just as there is little traffic.

Political Situation

I shall give you a summary of an interview with a director of one of the lines. It summarizes truly with the German view:

If German aviation is at all behind other nations, it is the result of Allies' restrictions. With the French recently engaged in trying to keep down German aviation, with the British a bit more lenient, The French opposition has as many cases less in direct violation of the Versailles Treaty provisions, forcing German manufacturers to go abroad for foreign sites, such as the Junkers factories in Sander, Duesseldorf and Pforzheim. Pforzheim, however, has succeeded by shooting out French traffic over German territory. The Franco-German line is no longer in active operation because the Germans won't permit flying over their territory, and the passage over the Swiss Alps is dangerous and has already caused many accidents. Germany wants to expand its aircraft production. Negotiations are going on, but the only condition the Germans will consider is reciprocal flying privileges.

The above opinion should of course be taken with a grain of salt, and later I'll try to give you the full story. I might say here that the Germans, and with some right, consider



The Fokker F.III C.10, which has been so successful as many European air lines.

I flew over the newly established Elbe route recently. This is the first route route to be established in Germany, and was started a few weeks ago. The line runs from Hamburg (Elbe) east to Dresden, with a stop at Magdeburg. These planes are used—the regular four passenger planes, with passengers. It is, of course, a Junker line, with subsidy from the government. The Elbe is a narrow winding river, but it flows through comparatively flat country. The line covers a four hour flight, with a half hour break time in Magdeburg. It must travel a great number of miles, the route would be fairly short, as the distances with the usual savings are not great, but it is a needed transportation facility. Flying over this route I couldn't help thinking just what the Germans would do with our Illinois, Mississippi and Great Lakes. The Elbe

replica replaced. One flight, with four passengers, was as successful as any Twentieth Century Limited train, only of course much more comfortable with passengers. Elbe passengers are very much like us, as the pilots take great pains to keep the plane steady, even at the expense of time and gas consumption. The planes of this large size operate as far as Amsterdam, and as fast as we ever can, but will not put into service in the more crowded lines.

I am flying to Amsterdam this end of this week, and the large plane, which is really nearly twice as big as the Elbe, on the same route. Planes as compared to ours are little lighter than these planes, and in many instances not so light. For instance the Koenigsberg flight costs 20 gold marks (190) for the one kilo. The cost for second class on the fast train is 82 marks,



The Junkers all metal monoplane. This type has been in use on continental air lines both in Germany and most other countries over since the war.

Germany the natural center of continental air traffic, for lines running to Russia and the Greeks. Both England and France expect to follow suit, according to the latest information available to us. Major T. E. Lloyd, who will have to consent to a new agreement with Germany, if France wants to have an eastern and western air mail, and England wants her to have one. Although the treaty regulating government airways charges power to Germany to let down, she has numerous permitted lines after all her own, and the Germans are bound to make the same number of lines. But the Germans recognize the advantage given Germany by first destroying most of her war stock, and then clearing the field for new material, and then the restrictions which forced Germany to concentrate on purely civil aircraft, if there is such a thing as purely civil aircraft. German industry has, within the limits of the Allied Treaty, the same rights as any other manufacturing country.

Regarding private air mail, there is data to be had here of great interest, now that the Post Office Department is considering letting air contracts for mail. The night air mail from Berlin was discontinued, so part of it went by the Jacobs' "Night Mail." It was to be sent from Berlin to Stockholm, Berlin at 8 p.m. and arriving at Stockholm at 8 a.m. The present project is much promising—mail plane leaving Berlin at eleven evenings, going as far as Wadens, Sweden, in time to catch the express train which brings the mail into Stockholm in the morning. The arrival of mail at 5 a.m. is, of course, unnecessary, and the present plan works better and more conveniently. Air mail is much more extensively used here than in America. There is no comparison.



Instrumental Navigation Planes
A French biplane flying over a passenger steamer. An attempt to shorten the time between London and Paris.

I might add that the Germans are gathering experience that is absolutely essential and without which no successful air traffic will ever be really established. For instance, air mail lines are continually being changed, one time schedules, new ones established, old ones done away with, etc. Many Germans, even now, say that the entire system will have to be changed; that the scheduling system out of Berlin (and probably out of Paris) will have to be completely revised, with it and around it, in order to be logical and comprehendable, taking into consideration. For example, London-Berlin-Munich, Paris-Frankfurt-Dresden, Holland-Vienna, etc., planning lines to run direct, with intermediate lines forming local connections. Parallel lines are lines, and like Germany itself, with cross-hatched local lines, is considered the most practical plan, which is the only way to get the best results out of a system of navigation. But the Germans consider their condition to be different than that of France with Paris as its center. Berlin is not the new main point in Germany and should not artificially be made so.

This planning of air routes will give an idea of several

German projects in air traffic. The other day I was working at the Aero Club in Berlin and was witness to an interesting meeting. Paul Kruger, the president of the German Aeroplane Association, and Major Tschudi, the director of the Aero Club, for instance, in getting an air line to run through their city. One of the men was Langenauer. Major Tschudi told them frankly that even if the two presented certain routes they could not have Berlin line run through their town. The reason being for the fact that he was to submit a proposal to the whole world that Berlin would have to travel north and south of their town. The two men agreed and preliminary plans were had for a two-plane line, making connections with the Berlin-Rosenthal and Berlin-Mittelelbe Lines.



Fokker Wulf biplane transport plane seen from the front

Colonel Sternberg is director of the newly established "International Aviation" in Berlin. He is German but has been the Italian aeronautic funds, the Siberian flying clubs and interests from an enormous expenditure of cash. Of course the United States has no such facilities and there is no collection of air law as is found in America.

I am now writing permission to go to Moscow. The Russians also have established an Institute for International Air Law, and are doing very interesting work.

Recording Compass

The new device records on a paper chart, by means of pen and ink, all the various headings which the airplane assumes. First successful tests of this new recording compass were made in flights over Berlin and vicinity the latter part of March. The tests were highly satisfactory. In use of them, after the magnetic compass, the McCook Flight's straight flight was made. After this, the compass was turned 90°, then 180° and the flight made back to McCook. All changes were fully and accurately recorded.

The vertical movement of the recording pen is governed by a series of magnets and relays so that the entire device can be placed in the wings as far as the feelings of a pilot permit or desire. The compass itself can be put on the tail or the center of the aircraft, whichever is more convenient. The two parts being connected by wire cable.

One of the great troubles with using magnetic compasses in airplanes has been the errors caused by the pilot in trying to hold on to the compass, that falsehoods are affected.

There are four models of the recording compass—one in which the chart is carried off according to the line, so that one can tell how many degrees the plane flew in any one direction, and a second model that holds staff azimuthally to record navigation, in which the chart is carried off at actual angles traveled in each direction. In the latter model, instead of connecting the chart rulers to clockwise, they are arranged to connect them to the left.

The advantages of the recording compass to the Air Force are many. In war time navigation, far more precise or exact results, will tell the pilot as to whether his destination for bombing and also tell him in revising his path and returning to his home field. In commercial aviation it will enable a check to be made on the pilot's efficiency in flying straight and direct, and also to check the pilot and ground observers as to the general functioning of the compass and to study to be made of certain improvements in design and instruments designed to help the pilot in cross-country flying.

The first tests of the recording compass were made under the direction of Y. E. Shavelson, instrument expert at McCook Field. Louis D. L. Beaurier was the pilot and Newton Lamm the observer.

New English Passenger Machine, the DH54

New Fourteen Passenger Airplane with 600 Hp. Rolls-Royce Condor Engine Now in Service

The most recent acquisition of the British airway operating company, Imperial Airways, is the DeHavilland single-engined biplane, the DH54. This machine was ordered about a year ago and was tested by Captain Broad on June 25. It is powered with a Rolls-Royce Condor as is the Avro Avian shortly to be put in service by the same company.

In the DH54 the engine is mounted on a frame which is very closely standard DeHavilland practice, and at first glance the 54 looks very much like the 53, but on a larger scale. There are, however, several noticeable differences in general design as well as in details. In the 54, the upper wing rests on the top of the fuselage, whereas in the 53, there is a gap between them. This is due to the longer wing span of the new machine and the fact that the upper fuselage is shown the name "Biplane." One of the outstanding features of the machine when viewed from a distance is the high aspect ratio of the wings, actually being 5.6.

Seating Arrangements

The fuselage is the usual DeHavilland design with flat sides and a deeply dished nose. It is in two sections with the joint just aft of the engine. The rear section consists of half of the fuselage with full glazing from end to end. Each portion forms a complete structure in itself, and to keep out water in case of emergency landing, the small gap between the two sections is covered with fabric. The cabin portion of the fuselage is very large and roomy and seating accommodation is provided for fourteen passengers, the seats being

arranged in three rows, two close together on one side and a single row on the other with a narrow aisle the entire length of the cabin. All of the seats in a large inventory.



Front View
View of the nose and undercarriage of the DH54. An idea of the size of the machine is gained by comparison with the Rolls-Royce automobile.

The Rolls-Royce Condor engine is mounted on a composite structure of wood and steel and is supported from the rest of the machine by a five point bulkhead. The pilot's cockpit is located in the middle of the front section, the front legs of the leg frame being supported by a seat which is known as a "Stamp" to represent the name given by the British to the front legs of the machine. Next to the pilot is the gunner's seat, a simple gravity system with the main tank in the top center section. The capacity is 175 gal.

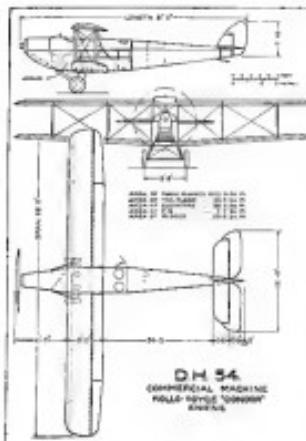
Landing Gear is Collapsible

The landing gear was designed with a view to possible forced landings in the water. In the event of a "Wet Type" shock absorber is by rubber shock absorber or compressed in a streamlined housing in the middle of the leg frame. The king pins of the leg frame are connected by levers to a control in the pilot's cockpit. The front legs are fastened in the sole for landing and are shaped so that when the large gear is packed and when the aircraft is on the ground, where the two front legs are free to fall. When the aircraft hits the water the two front legs will fold back against the fuselage. By this means the pilot will be able to make a stiff landing on the water without danger of capsizing.

The structural feature of the wings are the DeHavilland type, which are stepped in their section. They are held firmly by rubber shanks which are attached to the struts. When the machine reaches a flying speed determined by the sense of the wind, the flaps move up in line with the rest of the wings. The ailerons have the DeHavilland differential action and are also arranged to act in unison with the flaps. The effect of these two devices is to give the machine a lower stalling speed and better control at that speed.

Performance

Detailed performance figures are not yet available, but the cruising speed is expected to be in the neighborhood of 100 m./hr. and the landing speed about 55 m./hr. The weight empty is about 3,800 lb. and loaded 11,000 lb.



The English Light Plane Meeting

The Royal Aero Club Meeting at Lympne Fails to Bring Out Many New Light Plane Designs, Engine Performance Greatly Improved

The Royal Auto Club Annual meeting was held at Lympne on Aug. 2 & 3. Lympne was chosen because of the facilities in the neighborhood and the R.A.C. was unable to re-entertain. In order to make the meeting of more general interest, events for full power automobiles were included. Due to the distance from London, and other factors, the meeting was not very well attended by the general public, although the industry was very well represented.

The machines entered were, with one exception, not of this year's design. The exception was the Cessna (4-12) built by the Crosswell League Aeroplane Club. The club is composed entirely of R.A.F. officers. The designer was Flight-Lieut. N. Cooper who also piloted the machine in the races. This is the second machine to be built and entered in competition by this enterprising organization and their enthusiasm deserves to be commended in this country.

Light Aeroplane Holiday Handbook

The first event was the Light Aeroplane Holiday Handicap, limited to machines whose engines did not weigh more than 170 lb and of any nationality. Due to the large number of entries this event was divided into two heats. The entries with their handicaps were as follows:

State	Associate and Family Baptist Church	Baptist and Other
Alabama	1,000	1,000
Arkansas	10,000	10,000
Florida	10,000	10,000
Georgia	10,000	10,000
Louisiana	10,000	10,000
Mississippi	10,000	10,000
North Carolina	10,000	10,000
Tennessee	10,000	10,000
South Carolina	10,000	10,000
Virginia	10,000	10,000
West Virginia	10,000	10,000
Total	100,000	100,000
State	Total	Percent
Alabama	10,000	10
Arkansas	10,000	10
Florida	10,000	10
Georgia	10,000	10
Louisiana	10,000	10
Mississippi	10,000	10
North Carolina	10,000	10
Tennessee	10,000	10
South Carolina	10,000	10
Virginia	10,000	10
West Virginia	10,000	10
Total	100,000	100

The first three in each heat were run in the final. These were the two D4860 and the A500 from the first heat and the Pinto II, Prior 131 and Illustration from the second. The winner was the Harrison at a speed of 78.2 miles per hour. The speeds of the last sixteen up were 61 miles per hour, ten out of the D4860 and 64.5 on /per hr for the A500.

The second event was the Two-fighter Light Plane Scratch Speed Race. Both two machines competed in this event. They were the Brewster "Ree Bee" and the Hawker "Cuckoo". The Wren Box went at a speed of 66.5 miles while the Cuckoo made 66 mph.

The third round, and the last on Aug. 8 was a speed race for single seater light planes. There were four entries, the



Brett, Beldi & Hedges

The last addition from the test set is:

September 7, 1995.

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5,650 ft.; Fender, 4,500 ft. Graded bright without base coat, Wee Roy II, 580 ft. There were also exhibitions of aerobatics by various machines and shooting by a skywriter who left a trail of smoke behind.

The first event on Monday the third was an unseeded International Meeting over a hundred mile course. This event was also divided into two heats with the following results:

followed. The final win was by Holmes with Holmes and Dene third.

German Challenger Cup

The next event was the Grosvenor Challenge Cup Handicap British amateur with engine weight less than 273 lb over a hundred mile course or eight times around. The four entries and their handicap were as follows:



The Short S-20 has two-place light monoplane (Bristol Cirrus engine) entered in the European competition. The fuselage has a short cantilever wing which is riveted to bulkheads of the same material. The wings are of wood and fabric.

The D-1000 and the Superlite failed to start on their last and the Hurricane only started one lap.

There were two non-starters in this meet, the Short and Collier with a DNF. The winner was the Harrison again with the Bruegger third and the G.L.S. fourth.

Private Owners Box

The last event was a race for private owners. This was also a handicap event and the seven starters with their handicaps were as follows:



卷之三十一 五七九 二二一

AIRPORTS AND AIRWAYS

Kansas City

By Russell E. Smith

The first flight-out of Kansas City, Mo., consisting of an internal combustion engine, of 2 hp., weighing 20 lbs., occurred Thursday, Aug. 28, when the White Eagle Works of Kansas City, Mo., shipped a small engine to Wichita, Kansas. It is a photo from Richards Field, printed by "The" Legume.

The engine, then making the round trip, was ordered by Gen. C. Christopher and Son of Wichita, Kansas, who manufacture aircraft, and was destined to all of their orders from Opaeka, Kansas. It was expected to be delivered in Wichita, but the engine was never received and never used. The engine was received at 5:00 a.m., and a truck had the engine, crated and addressed, at Richards Field at 10:30, and a few minutes later the engine was in the air, the big engine occupying the forward cockpit. At 12:00 the engine was delivered safely at the Wichita flying field where a team quickly loaded the Christopher plane, which took off at 1:30 p.m. and arrived flying direct to the Wichita point and Wichita completed what he believed to be a record in delivery time of such an order.

Laguna, Mexico

By Maxine C. Hause

Another air mail route is prepared for Division. If Uncle Sam ever needs all the bags handled by local newspapers he will need as many postal clerks as he had "Adams" men doing the work and a post office as large as the Grand Central station. This is one new venture. It has been proposed to use Cincinnati men to do the bags, and to go along with Cy Caldwell's airmen.

The Chamber of Commerce is soliciting business, or rather questionable prospects for the support that can be expected from this. It's evident they don't want any more ships around here since the Post Office and the Chicago & St. Louis Air Mail routes have overburdened the city.

To Cy Caldwell's brilliant and effective description of the Ciudad airport celebration, July 4, we failed to seek any mention of his besieging avaricious airmen entitled "Hating 'Em Down." "Patriotism" modestly, no doubt. Or it may have been a Volksblatt illusion on our part. At any rate this is our choice, and we'll stick to it. This person, whom we shall call Cy, was the first to land in Ciudad, and the first man and the first and the first, made the pointful during in that dusty area of the day. It was as he arrived from New York with a handle of silk stockings. He walked—no, not walked—an from the east, bent over, hands clasped to dust off the weather after, then sat down on Major Wurzburg's doorway. And that after, some hours later, he was "spotted" with a Navy today up, set an audience mused to come to compete together to come down or land in Lake Erie and walk the 30 miles.

At Johnson, otherwise E. A. Johnson of Johnson Airplane and Supply company, has had a merry time this summer testing duffelbags, carrying passengers of "need a pound," and "need a thousand," and wondering what chance the various PAA's will have. On Aug. 20, "Candy" Johnson stopped near parish in the Beldam front. But with all his troubles, we salute him still—with one exception.

At present we are operating one Curtiss 2000 with 100 hp. Hispano-Suiza engine and two Curtiss 400s with 635 hp. engines. Two five place Standards are expected to be de-

livered in time for the cotton season. We are charging thirty-five cents for one passenger air plane in the Legume district and fifty cents for round trip for car passenger. Fifty cents for two passengers round trip and seventy-five cents for two passengers round trip. And for round economy trips, fifty cents per passenger, plus 25¢ each for baggage and twenty-five cents for two passengers. The present value of a car is about fifty cents and a round-trip car-half cost, United States.

The delivery of payrolls to the large cotton ranches in the Legume is also very useful to the ranchers, as it is very dangerous at times to deliver money by automobile, airplane and Mexican railroads. All recent we have thirty-five improved and marked landing fields in the states of Mexico. Most of them being air cotton ranches in the Legume.

Dayton, Ohio

By Maxine C. Hause

Another air mail route is prepared for Division. If Uncle Sam ever needs all the bags handled by local newspapers he will need as many postal clerks as he had "Adams" men doing the work and a post office as large as the Grand Central station. This is one new venture. It has been proposed to use Cincinnati men to do the bags, and to go along with Cy Caldwell's airmen.

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About AF's other activities. He is now equipped to eliminate anything from the national fauna to a horse patrol, thanks to the new Marmon demonstrator during hunting. That device may be installed or removed from a Jenny or Standard as required. It may be used for observation purposes or for surprise with practically no alteration to the craft. The main device is a compressed air piston which operates the pneumatic in the center penetrating it from settling or roaking. We witnessed the initial test on the ground and from the air and were surprised at the even force from the venture, even in a light cross wind, and the results were which it settled by the time it hit the ground. The Marmon was shot down later, before the Indiana International festival, and will be put up again against obviously pesky insects to Marmon grows.

To determine whether there are any lasting benefits from mosquito disease by airplane routes, Mr. Johnson has retained a series of Dayton physicians to conduct a series of experiments on the mosquito life cycle and affect the life span of the adult and later instar. Patients have been coming to the Johnson Flying Park from throughout Ohio to take this treatment. In every case they report being referred to a prescription degree. Carrying passengers at a cost a postman has done much to "sell" aviation to the average family around Dayton. Mr. Johnson introduced the plan early this summer and found it so popular that it has been adopted as standard for short flights.

Those unfortunate details in four days named William Wright Fields' terrible mind for Revenue officer's training camp. They were the first fatalities in the base pens that Major E. A. Johnson had built in the name of the Freedmen's Association. Death came to the first death in the Ohio River Reserve, 25 of Dayton, a member of the 88th Signal Observation Squadron. He was struck by a propeller blade smacking the engine of a Curtis training plane. On the following day the same engine claimed the lives of Laertis Johnson, 27, of Dayton, No. 30 of Piqua, Del., and Leo L. Hause, 21, Toledo. The three young men were flying in formation and an unnatural effort to "steer" a glide. Lieutenant Eaton, the pilot, had just landed when the engine began to spin down and land in Lake Erie and walk the 30 miles.

Although we have not seen it, we would think the age of which Warren J. White mentioned in the Gardner City news is a "showstopper" padding from the market. It has been selling over town recently.

No Wright would be complete without a McCord Field model. We had it in. The engineering division has supplied an air mail plane with a nose directional landing device developed here and is another contribution of the transmitting apparatus of Monmouth, Ill.

New England Notes

By Peter Adams

On Saturday Aug. 26 the 200th Division, Air Service, N.Y.C. will go to Langley Field, Va. for fifteen days active training. Major A. E. Jones, U.S. Air Service, the instructor to the National Guard Craft will accompany them.

While Lt. Robert J. Blaauw, Jr.—the commanding officer of the Boston Airport is away on ten days leave for his first visit to Europe, he has been succeeded at the airport a year ago. Lieutenant Jones has had a very difficult time. All New England and particularly that portion of it interested in aviation glowed with righteous pride when it was an

assured that the Seaford Trophy had been won by Lt. Col. R. D. Thomas, U.S.A.F., executive officer of the U.S. Naval Reserve Air Station at Beaufort, South Carolina.

At the 10th Annual meeting of the American Legion in the early summer, last year, the Legionnaires, from the best pilots in the country, had a general meeting for Naval aviation and for safe and sound flying that we have heard of in many months.



Left: Captain S. H. Parker
Prof Alexander Klonek and Major Robert Roberts accepting the Scientific American Trophy. In flight glasses from Davis G. Moon

The trophy was presented to Lieutenant Thomas by President Coolidge and was won by his unit crew of 100 men, over 100,000 men, in the annual competition. The story of his achievement is also chronicled by Lt. Col. Gandy, commander of the station and his splendid crew who by their interesting efforts captured the vital equipment and instruments.

The first fact we give with pride over our own going to Langley, is according to Cy Caldwell, both he and I had been shot down three times on the water. We would point out to Cy, however, that his migration is a bit racy due to Sean boots and the Public Goods and not the Free Press.

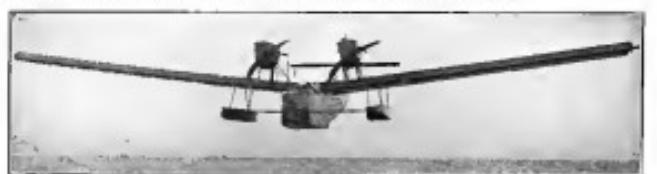
Major Edwin B. Jacobs, former air aeronaut of the 1st Corps Army, now stationed at Langley Field has been visiting New England for several weeks. He spent a week with us at the farm and left yesterday to return to Virginia via Boston and New York.

Baltimore Notes

By Peter Adams

If I may be permitted to interrupt the Cy Caldwell-Parker action, a definite banquet shooting competition, I would like to add the Editor of the Baltimore Sun, Mr. Frank Murphy, who has to do with aviation anyway and further, that he is the man if the transcontinental Air Mail requires its operation to a take-off from the Marine Field, a flat rate over the City Hall, and a landing at the Cleveland Airport. I also note that Cy's staff seems to be getting so damn important that the Editor goes to great lengths to keep him away from the field of publicity. No one seems to get this attention. Not that I would say anything at Cy's staff, if he will pardon my undue familiarity, with his readers, seems it's good. What I object to is that this makes us poor, (the next time T-2 will call a coke stand) and this perplexing Red Cross Soccer League Headquarters, are monopolizing too much space that might be filled up with intelligent area items.

Interest down our way centers in the Schlesinger Cup Race which will be run off on Oct. 24 if the Army and Navy fa-



P. A. Photo

The Rolland off-metal flying boat being made under license by Boulton and Paul.

not make up their steps in the Palgrave Race before they leave a chance to get them up and practice to meet the British and Hudsons. The race this year will be held at Bay Shore Park, the other two racing points of the 58-mile course being Gibson Island Light on the Western Shore and Hunting Field Point on the Eastern shore. From what I hear the British and Hudsons will be flying speed trials and the Americans will be racing in the traditional manner of holding a first International (FAI) plates race (open cockpit of the biplane). Every one is suddenly excited. My hangaritters type is pretty tame but Bessels is holding up. The latter has planned to fly through they do say that gung-ho Boys have hollow legs.

The 20th Strategic Air Service, M.O.D., completed a most successful two week's training at Langley Field. Our boys flew everything they could fit on, DHs, SEAs, Fokker C.G.M.s, Thomas-Morse MBMs and some of no regard on Martin Bombers. They are great old cranes, Gt. Brit. Maryland Infantry Brigade held its annual at Virginia Beach, consisting with only 100 miles of coast line, 30 miles of open water, with our own with the admiral's wife was defined perfectly, especially our local recommendations. We also did a two days' shoot with the Virginia National Guard Coast Artillery who came up to Fortress Monroe and broke a lack of 50 miles gun. Every now and then the men world blow up they would get a wild shot at the target. That's the way the last captain's faith in human courage was sharply increased. Since the day of us we sound several air captures out of several years growth of leaves.

The Gates Flying Circus just gave us a visit. Wonderful pilots. They know when to take. Those who stand in the sun are the ones who have been with them. No matter who stands on the top wing, he comes as always. Diamonds. They have it this way because they have to change diamonds frequently, and if they advertised a new kind every time, people would begin to think the same diagnosis.

Just now our General Overholt are having setting up some Consolidated DBMs, fighters known as the Boston-Wright "Cheatay". One of them goes in the Boston National Guard Unit. Porter Adams can fit it up with rudder job and said it looks like we want to, or maybe he had better said it to G. Caldwell before. By like all the stops and of due to temporary indisposition.

St. Louis Mo.

There was a big storm at the field Aug. 22. Many of the ships in the hangar were flying. Little damage was done, mostly broken edges of wings and tail. G.W. O'Neil, who was in the hangar at the time, says there were more ships in the hangar and a good of the hangar fell off a sheet on his first solo. Yes, two or three.

There are several commercial ships operating in and around Seattle. Walt Bruns and Ray Seal, with a beautifully

new Boeing Kansas City Aug. 22 and left Aug. 23. As Q55 Grads start in Aug. 22 and left Aug. 23. This is the first Q55 Grade ever seen here but we have two Q55 Grads here. A new type of plane was tested by Cheveron Aug. 16. It has all Standard parts, a Standard tail and a V-8, 208 hp engine. It is a five place job. It was a complete success. All pilots are urged to visit the field. Gas and oil are available on the field, also complete parts for planes.

Seattle, Wash.

By Lee Isham and Raymond D. Marx

Flying, both Service and commercial, has been very active and around Seattle, entering about the airports, Seafair Point Field. The Army maintains numerous facilities for its local Reserve officers, under the command of Lieutenant T. J. Keating. Several commercial fliers make Seafair Point the base and use Boeing Airplane Co. as their main source of supply. The Boeing Company's field office accommodates both land and water aircraft, having an excellent, greatly sloping sandy beach where its northern and southern ends on Lake Washington, and having a fair sand bar and smooth runway free from obstructions at either end for the landing of seaplanes. The winds are almost universally north and west. A standard Army type hangar which houses the P-26, P-29 and two Boeing Model 80s, is located for the use of the field office and Reserve officers. Small and Strong commercial operators, have an excellent hangar for the protection of their Lockheed-Standards. Three civil service employees, Merrill Max George, Louis Larson and Robert Allen, of the Air Service base and executive mechanism, keep the Army planes in the best condition possible. The Army has a large number of its unconverted B-17s parked at the field to provide strength in compensation of the loss of oil companies. A Paul Eremenko under Army supervision, is operated by Dailey and Rollands. The proprietors of the Post Exchange also set up an initiation bar, featuring victory to the airplane operators who do parades, carrying, passing and festinating of interest at the races. The only facility necessary to a growing airport is provided.

Plans are now definitely under way to enlarge and improve Seafair Point Field, with a view to its being used as a Naval Flying base in addition to its present function as an Army Reserve field and as a commercial airport. Approximately four hundred acres of land adjacent to the present rather narrow field are proposed to be cleared and graded for future construction. An enormous amount of clearing, leveling and grubbing out of swamp will be necessary before the total area of the proposed field will be suitable to flying, but when the work has been completed, Seattle, the Army and the Navy will be able to boast of one of the finest landing fields and seaplane bases to be found in the country. It is believed, however, that the present field will have to be enlarged to a size large enough for the landing of a Boeing Bomber or a similar one on first solo. Yes, two or three.

There are several commercial ships operating in and around Seattle. Walt Bruns and Ray Seal, with a beautifully



From Universal R. Untermyer

Members of the Canadian Ellsworth Arctic expedition during a track for the ride of the North to Spitzbergen.

Shakel, joined new Lincoln Standard, established headquarters at Brad Point and have been doing commendable community work ever since. They have, from the plan to the very best of condition and an attractive appearance makes a good impression wherever it is seen. Louis G. Goldsmith and Ed. Leding have been flying a JN from Seafair Point, doing both passenger carrying and chartering. L. W. Crosby, pilot, has a JN from Seafair Point Field, doing charter work with A. H. Gandy, co-pilot. The two are flying a Boeing 80, "Fairy" with Goldsmith and Leding, has made several successful double and triple jumps of fairs and exhibitions this summer, and the only man in this vicinity doing work of this kind at the present.

There are also several flying boats and seaplanes operating from the various lakes and waterways hereabout. "Duck" Edwards, pilot, comes from Brad Point Field, with Major G. E. Hall, Eddie Haskins and Billie Jean, co-pilots, the world's oldest commercial air mail route between Seattle and Vietnam, B. C., using a Boeing Flying boat. Kenneth Gager and "Sleepy" Hill, both formerly of Spokane, have a Lockheed Standard equipped with pontoons with which they have been terrorizing wherever waterways provided opportunity.

There are over 100 Air Service Reserve officers in this vicinity of which approximately one-half fly aircraft at Brad Point Field. At present the greater portion of these are at Rockwell Field, San Diego, Calif., attending the summer Reserve camp. Seattle's quota of recruits was entirely filled, so that, with Lieutenant Keating absent from Seafair Point, he having also left for the commission, in addition to the 100 or so regulars, there are now 150 Army flying activities in Seattle, having temporarily completed.

The Boeing Company's contribution to the forthcoming attempt of the Navy in the Pacific by air has been in evidence at Seafair Point during the past two weeks. It consists of a monster but highly proportioned Flying boat, equipped with two Pratt & Whitney engines of 800 hp each. Flight tests have been progressing during the past week and, with the exception of a few minor changes, the design was found to be fully satisfactory.

The Boeing plane was recently tested at Brad Point and was later flown to San Francisco by Eddie Haskins and Les Tamm. The plane is a beautiful job, having a monoplane fuselage, a neatly cowl Liberty engine, a divided, side type leading gear and various other features of interest.

Spartan will soon use a Farman "Sport" in operation, as this is the first plane to be used by the company, the name formerly belonging to the Pioneer Aircraft Co. of Springfield, Mass., the estate of the late Mr. Bassett. He plans as soon as possible to Spartan room and, to have surface repairs and alterations made as so that it will be ready to fly before the arrival of the winter of bad weather.

Lawrence A. Dawson Dies in Accident

Lawrence A. Dawson, instructor at Stave Field, near Alton, died in a crash of an airplane owned by the flying field. Thursday evening, Aug. 6, and Anthony Salter, a mechanic, escaped with minor injuries.

Dawson, 32, was flying a single engine plane at the time, one kind of the motor used being while the plane was being cleaned over a wooden post beyond the field and crashed to the ground at the edge of the grove of timber.

Dawson, in the front cockpit, sustained a fractured skull and was killed after his arrival at an Alton hospital.

He was born in Alton and had been married seven years. He had also been identified with numerous aviation in Cleveland and Toledo, the home of his parents.

During the war he was a lieutenant in the Air Service and was an instructor at Kelly Field, Tex.

Dawson was a member and one of the directors of the Commercial Aircraft Association, a member of the Alton Chapter, National Aeromarine Association.

His death occurred a year and one day following that of Harold A. Kullberg, Canadian war "ace," killed in an instruction flight last summer. Kullberg and Dawson had been

associated in Alaska for several years. Dawson was married.

Another Air Mail Route

A petition for the establishment of an air mail route between New York and Miami, Fla., was received by Postmaster General New Aug. 22. Starting at New York, the proposed route would embrace the cities of Philadelphia, Baltimore,



A very interesting float featuring the Goodyear G-24.

Washington, Richmond, Norfolk, Wilmington, N.C., Charleston, S.C., Savannah and Brunswick, Ga., Jacksonville, Tampa, West Palm Beach and Miami, Fla. The route would be 1,500 mi in length.

The petition was signed by the postmasters of various cities mentioned. The Postmaster General will submit an application to see if such a route would be feasible and if the fact is established, will submit a bill to Congress for acts under the laws of the new postal act to aid in the cost of postage.

Airplane Carries Pipe Line

Pipe-line miles of 18, 15 and 16 steel pipe, total length 500,000 ft, is being transported by airplane from Newell, Minn., to the Independent Paper Mill Company's property on the upper north bank of the Clearwater River in the Old Mine City district of Idaho. The plane is operated by D. A. Di Pisa of Boise.

This is believed to be the first time that aircraft has undertaken the task of a job of this kind. The load for each of the 100 trips is from 100 to 150 ft of steel pipe, weighing 100 lb per foot. The distance in the air from Newell to the mine is 24 miles.

The pipe, made in Spokane, whence it was transported to Newell, is being loaded and is hoisted in the pit between the pilot and the engine. Some of it is hoisted in the rear. The plane carries the cargo over the 5,000 ft range of the Bitter Root mountains. When it is not for the plane, which makes as many as 100 trips a day as long as the weather will permit, he takes in his truck and goes to town, which takes two days to make the one-way trip. The pipe will furnish power for the hydraulics.

Kingsford-Moscow

The Dorset Line from Kingsford to Moscow continues to keep up a steady volume of traffic. During the month of July, 80 flights were made covering 42,800 mi and carrying 138 passengers, 1,264 lb of mail and 22,388 lb of express matter. Total 1,364 lb of express per trip. This line has connections with Berlin, Amsterdam and London and Moscow, by the Uverschlagkopt, with Chakhot, Odessa, Ostend and Kiev.

UNITED STATES AIR FORCES

U. S. ARMY AIR SERVICE

Model Airway

One of the most interesting features of the U. S. Army Air Service is the way it has been established and maintained by the Model Airway. The operation of this Airway has served two important purposes, that of testing Air Service personnel in cross country flying, and demonstration at the present time of commercial aerial transportation. Not only have these two purposes been accomplished, but also a very considerable service has been rendered in the transportation of personnel and supplies for the Army Air Service.

The Model Airway was first established in May, 1922, covering New York, Washington, San Francisco, and Detroit. Later the operations were extended to Denver and Boston, and at the present time, the original four cities have been joined by Atlanta, St. Louis, Chicago, Milwaukee, Toledo, Ft. Wayne, Indianapolis, and San Antonio. At the end of the fiscal year 1925, the weekly schedule provided for flights totaling 7,600 mi. These are accomplished by eight Army Reserve stations, each sending one plane over the Routes of Standard Bases in every state. Each trip averages approximately 3,500 mi., with segments of the inter-sectional route, which is returned by McCall Field, Dayton, Ohio, the central control office for all flights at this station. This facilitates the carrying out of tests on special equipment designed for aerial navigation, and in addition it is much more centrally located than the original starting point at Bolling Field, Washington, D. C. All airways stations are equipped with radio, telephone, and wireless, and the stations include the general supervision of the Army Air Service at its stations, the meteorological service, communications and passenger reservations.

The Model Airway is flown by various planes, in order that the valuable resources provided may be shared by as many men as possible.

The present statistics in the operation of the Model Airway group Number of trips started, 545; Flights made, 584; Number of trips completed, 560; Number of passengers carried, 949; Hours flown, 11,030; Number of miles flown, 951,336; Pounds of express carried, 46,787.

In all of the flying done on the airways there have been no accidents, and a total of only twelve wrecks, in which no injuries were sustained, or in any case of a minor nature. All this flying has been done also at an additional expense, estimated at the starting point and facilities of the Army were used exclusively. The cities at which stops were made have played no small part in the economy of operation of the Model Airway, having given the visitors special rates at hotels, etc.

One of the most important features of the Model Airway is the development of a meteorological service. The increasing interest in aeronautics indicates that the present weather conditions are of great value in the planning of future flights, for which use on the Signal Corps and the Weather Bureau are cooperating to take care of the situation. The present organization, which is of the greatest importance in the Model Airway, is responsible for information relative to the weather conditions being made available to visitors through the entire Air Service. The value of the meteorological information to the Model Airway is so great that with the flight of long distance routes has led to the formation of a board, consisting of a representative of a Signal Corps representative of the Army Air Service, the Naval Bureau of Aeronautics, and the Weather Bureau, to formulate plans for meeting future requirements.

The various cities and towns along the route have cooperated closely with the Army Air Service in the preparation and maintenance of landing fields and landing fields in their cities, the majority of the names of the cities or towns on prominent buildings, etc.

Photographic Team

Capt. A. W. Stratton, Jr., who just recently returned from an aerial photographic mission with the Alexander Holley Far Expedition in Brazil, and Capt. John A. Macready, after altitude and non-stop measurements of heights from McCall Field, Dayton, Ohio, recently completed a photographic trip with Capt. E. M. Elmer, to the Western United States. The Delincoland, equipped with the latest design photographic apparatus, will be used in taking aerial views of practically all of the scenic points of interest in our western states.

This is not a new mission for these two officers, as on a former trip they succeeded in obtaining some wonderful photographs of Theodore Roosevelt's phenomenal views of the Grand Canyon, and the Colorado River, showing the beauty of our western hills and canyons.

Their return this year is an extremely one, following a series route with occasional side trips for the express eye to record the scenes wonderous that lay to either side. After arriving at Cheyenne on the start of the trip, they will follow the old trail route to Cheyenne, Wyo., via Cheyenne, Casper, Laramie, Fort Collins, and Rock Springs, through Vernal Park, the flying field at Roosevelt and Fort Collins, Fort Logan, and Fort B. A. Russell. In weather conditions are favorable and visibility and the absence of clouds permit, photographs will be made of Pike's Peak. From Cheyenne they will fly to Rock Springs, Casper, and Rawlins, Idaho, and through Yellowstone National Park to places such as those missed on their former trip due to clouds.



Boeing Model 80 photographed at Quantico, Va., in flight at 10,000 ft. above ground level, after test of the landing light.

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September 7, 1925

AVIATION

THE TRAINING CAMP

113th Obs. Squadron

One of the most progressive Air Service organizations is the 113th Division Air Service, Indiana National Guard. It is composed of the 113th Observation Squadron, 113th Machine Gun Squadron, and 113th Photo Section and a Medical Detachment. This organization was in camp at Wilbur Wright Field from Aug. 2 to 26. The headquarters of the 113th Division are at Kokomo, Ind., where a flying field is maintained, and where flying is carried on regularly every week-end, weather permitting; but for the summer encampment, Wilbur Wright Field at Fairfield, Ohio, has been chosen.

These schedules were followed with practically no change or deviation.

During the camp, the enlisted men in the squadron, under the direction of their Adjutant Officer, gave all the airplanes the necessary overhauling and cleaning. While this was in progress, other airplanes were loaned to the Squadron by Wilbur Wright Field.

Several weeks before the opening of the camp, a training course was prepared, which showed the exact progress of work for each day.

These schedules were followed with practically no change or deviation.

In a list of officers attending the camp: Major James C. Futter, Indianapolis, Ind.; Capt. Leo H. Bowen, Indianapolis, Ind.; Capt. Roy C. Moore, Kokomo, Ind.; Capt. John W. Deamer, Indianapolis; Capt. George J. Williams, Kokomo, Ind.; 1st Lt. Leon L. Arntz, Kokomo, Ind.; 1st Lt. Louis, Leon K. Landahl, Kokomo, Ind.; 1st Lt. Louis, Richard F. Taylor, Kokomo, Ind.; 1st Lt. Louis, Webb S. George, Kokomo, Ind.; 2nd Lt. Louis, Clyde Schreiber, Kokomo, Ind.; Capt. Lee Bratton, Elkhart, Ind.; Capt. Harry C. Parrot, Kokomo, Ind.; Capt. Charles E. Johnson, Kokomo, Ind.; 2nd Lt. Louis S. Treador, Kokomo, Ind.; 2nd Lt. Louis, Philip C. Wallace, Kokomo, Ind.; 2nd Lt. Louis, Ralph J. Ryck, Kokomo, Ind.; 2nd Lt. Louis, John G. Beiter, Kokomo, Ind.; 2nd Lt. Louis, Fred E. Hartman, Indianapolis, Ind.; 2nd Lt. Louis, Lewis Spillman, New York City; 2nd Lt. Louis, H. J. McKee, Indianapolis, Ind.

Photo T-2-A.
The experimental "Doubtless" landing. It was built for the N.A.F.
and has now Wright Field engine.

Capt. W. D. Denouillet, of the Regular Army, in the Air Service, was selected to be the liaison officer for the Indiana National Guard, and Capt. W. F. Denouillet, a commanding officer of Wilbur Wright Field, and the present camp was under his supervision. Major James C. Futter of Indianapolis, is the 21st Indiana Air Service Officer of the organization. Capt. J. G. Colgan, inspector, Capt. W. D. Denouillet, instructor, Staff Sgt. L. M. Johnson, supply, Capt. W. F. Denouillet, medical, Capt. W. L. Air Service officer, Capt. Charles E. Bowens, C.O. 113th Obs. Sqdn., Capt. H. M. Elmer, C.O. Medical Detach; Lieut. E. F. Taylor, C.O. 113th Photo Sec., Capt. R. C. Williams, adjutant; Lieut. L. K. Landahl, supply, Capt. J. W. Schreiber, operations & intelligence; Lieut. G. Shockey, transportation; Lieut. H. T. Rooney, Lieut. L. A. Atwell, engineering; Lieut. G. W. Hartman, armament; Lieut. W. L. George, communications.

The 113th Observation Squadron is well able to take care of itself. It maintains seven Curtiss JN-4 airplanes for training purposes, and a Delincoland plane for the Regular Army instructor Captain Denouillet. These form the first three squadrons to fly in the first division. An excellent organization of the officers, men, and the rest of the officers and men trained by Army made up by them. They immediately established themselves in one of the supply buildings used as barracks in wartime, and they established a gymnasium nearby, where all their sports were performed. They did not let the arrival of the 113th Division at Wilbur Wright Field to interfere with their duties, but their work was done the work just as they would be required if they were in camp 50 mi. from the nearest town. The first thing that they did on Monday was to test their packmules which brought with them. Boxes were used in the test and every passenger and mail within the boxes was weighed. The Squadron was officially organized by the Indiana Department of Wilbur Wright Field for the excellent crew they had taken of these packmules and the efficient mechanics at Wilbur Wright were equally emphatic in their expression of approval at the condition of the planes and engines.

The words of the officers and men is anomaly high. So great a pride is there in the work done by the members of the Indiana men who are assigned to New York City, referred by train to Kokomo at their own expense in order to be on hand when the camp should begin. These men were

Sgt. L. B. Jones and Sgt. Harry Walker.

During the camp, the enlisted men in the squadron, under the direction of their Adjutant Officer, gave all the airplanes the necessary overhauling and cleaning. While this was in progress, other airplanes were loaned to the Squadron by Wilbur Wright Field.

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U. S. NAVAL AVIATION

Schiff Trophy

The Schiff Memorial trophy, which was to be presented to the Naval aviator credited with the greatest number of hours in the air without cessation, was awarded to Lt. Edward S. Vining, U.S.N.R., U.S.A.F., for his consecutive duty at the Naval Reserve Air Station, Hampton Roads.

Lieutenant Thomas is credited with 583 hr. 45 min. flying time during the year without respite. He was the first to break the record of 500 hours. Lieutenant Vining was honored by the family of Lieutenant Schiff, who was killed while an active duty at the Naval Air Station, Hampton Roads.

The second record holder of hours without cessation was Capt. Harold D. Clegg, U.S.N.R., U.S.A.F., who was credited with 466 hr. 10 min. flying time. He was an airman of Observation Squadron No. 2 Sea Dogs, Calif.

Capt. Edward Verner P. Green, Naval Air Service, Pensacola, Fla., 45 hr. 40 min. Pensacola, Fla.; 25 hr. 50 min. North Island, Calif.; 10 hr. 40 min. San Diego, Calif.; 10 hr. 40 min. San Francisco, Calif.; 10 hr. 40 min. Los Angeles, Calif.; 10 hr. 40 min. San Diego, Calif.

Preston Condit presented the Schiff Memorial trophy at White Cloud, Massachusetts, on Wednesday, Aug. 29. Capt. W. M. Daffey flew from Anacostia to Boston Aug. 25 to deliver the Schiff Memorial Trophy.

Lieutenant Thomas received the Naval Reserve Trophy in April, 1917, and was not credited with flying at the Naval Air Station, San Diego, Calif., until June 1, 1925. He went from Squantum to the Naval Air Station, Mass., Fla., December, 1925, while at Miami, he was appointed a naval aviator. In March, 1926, he left Miami and went to the Naval Aviation Forces at Pensacola. From there until January, 1927, he served at the Naval Air Station at Le Croisic, France, which was to be reconditioned. In August, 1927, he was recalled to active duty as executive officer of the Naval Reserve Air Station, Squantum, Mass., which was then organized.

White Cloud, Massachusetts, Aug. 29.

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